YORK® Proactive Services

Model YMC² Centrifugal Liquid Chillers

Five-Year Time-Based Service

Chillers are responsible for the comfort and productivity of people in a facility, making them critical pieces of equipment. Unfortunately, chillers age like any other hardware. If your chiller breaks down, the prospect of facility disruption and unbudgeted costs is concerning. With Proactive Services, you stay one step ahead.

Developed by Johnson Controls chiller experts, Proactive Services are a family of proven solutions tailored to your chiller's needs and supplied over its lifetime. Our range of proactive measures can help prevent breakdowns, keep your chiller in peak condition and prolong its lifespan. We can also help with service planning to ensure downtime occurs at a time that's suitable for your staff and productivity.

Enhance your chiller care program with Proactive Services and discover a smart addition to your planned service agreement (PSA) or self-maintenance program.

The benefits of Proactive Services:

- Servicing is predictable and scheduled for when technicians and parts are available, ensuring your facility experiences the least disruption.
- Early service interventions reduce the risk of urgent repairs, overtime labor costs and extended plant interruptions due to limited parts availability from global supply shortages.
- Fewer technician visits and chiller stoppages for service mean business as usual for your staff and operations.
- Having the latest technology helps future-proof and protect your chiller from digital security threats.
- Minimizes the disruption and discomfort caused by unscheduled downtime and emergency repairs.
- Keeping your chiller in peak operating condition can extend its life and help reduce energy use and carbon emissions.

With Proactive Services from Johnson Controls, you get solutions informed by the expertise, resources and responsiveness of a global leader in building technology, delivered with the attentiveness of a local service company.

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Every five years or 30,000* operating hours, YORK® recommends performing the following Proactive Services and inspections to maximize chiller uptime and performance.

The following are the supported chiller models and corresponding kit part numbers:

YORK YMC² Chiller Style A Compressor FAA: 366-94952-620

YORK YMC² Chiller Style A Compressor FAB/C: 366-94952-622

YORK YMC² Chiller Style B: 366-94952-624

* Specific service intervals can be impacted by installation, usage, electrical power quality, environmental conditions and maintenance performed.

Scope Of Work	
Replace the following items with genuine YORK parts. New parts are calibrated and tested per manufacturer specifications after installation.	• Entering chilled water temperature sensor • Leaving chilled water temperature sensor • Entering condenser water temperature sensor • Leaving condenser water temperature sensor • Evaporator water flow sensor • Condenser water flow sensor • PRV/VGD position sensor (when applicable)
Check the following items and determine if replacement or recalibration are required:	• PRV/VGD actuator (when applicable) • Condenser liquid refrigerant temperature sensor • High pressure cutout switch • UPS battery health test (when applicable)

Time-based Proactive Services

Proactive Services make the perfect addition to your existing PSA and chiller maintenance program activities.

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How you benefit from our services:

Cost savings

The full replacement cost of the entire package is one quarter of the cost of replacing each part individually over time.

Each reactive repair typically requires the following:

- A troubleshooting visit to identify the root problem and any parts that need replacing
- A second visit to remedy the situation with the required parts

On top of that, additional factors can often drive individual repair costs significantly higher, such as:

- Lost productivity due to chiller downtime
- Performance degradation during the period leading up to the failure
- Overtime or extra labor costs due to emergency repairs after hours
- Downtime being extended due to difficulty or delays sourcing parts

Downtime avoidance

Four of the seven (or three of the six) replacement parts included in this offering are vital and their failure will prevent the chiller from operating. Typical downtime can range from three to seven days per occurrence, or possibly longer if parts are not in stock. By proactively replacing these components, work can be scheduled when parts and technicians are available and during periods when your chiller is not needed, avoiding unplanned downtime. All the work conveniently occurs at the same time, taking the chiller out of service only once and when it's most convenient – an approach that's much less disruptive than multiple emergency repairs.

Each reactive repair typically follows a similar timeline:

- **Day 1:** Issue is identified – assume a technician is available to troubleshoot the issue, make a diagnosis and order the required parts on the same day the issue occurs
- **Day 3:** Part is shipped – average of two days from order to shipment
- **Day 4:** Part is received – part is readily available and shipped for next-day delivery
- **Day 5:** Issue fixed – one day to perform the repair

What's more, the time needed to carry out repairs often increases due to factors such as:

- Staff and technician availability and delays making the initial site visit
- Lack of part availability and global supply chain issues delaying the arrival of the part

Energy efficiency

Keeping all parts of a chiller in top condition and properly calibrated ensures it's performing at its best, minimizing energy waste and carbon generation. As components wear, they can impact your chiller's efficiency before they cause a failure.

For example, chiller plants may use sensor data from the chiller as inputs to their control system and if these sensors are inaccurate, it can impact overall plant efficiency. Temperature and pressure sensors can drift out of calibration over time due to environmental contamination, extreme temperature fluctuations or excess vibration. This is especially common in chillers that are behind on routine maintenance. A leaving chilled water sensor that is two degrees out of calibration can result in energy costs of $10,000 more per year as the machine is unnecessarily overcooling.

Proactively replacing components reduces overall wear on the chiller, reduces the chance that wearing components are affecting other parts of the chiller and helps ensure your chiller is operating at optimal performance.